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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,506	11/27/2001	Sumio Ohtani	Q67390	8150

7590 03/20/2003

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EXAMINER

FORTUNA, ANA M

ART UNIT	PAPER NUMBER
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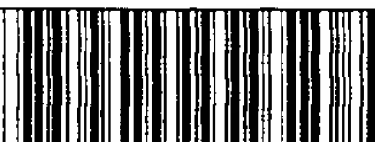
1723

DATE MAILED: 03/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No. 09 993,506	Applicant(s) Ohtani
Examiner Ana Fortuna	Art Unit 1723



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a) in no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the shortened period of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Nov 27, 200
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Hayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above, claim(s) 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ are a) \_\_\_\_\_ accepted or b) \_\_\_\_\_ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) \_\_\_\_\_ approved b) \_\_\_\_\_ disapproved by the Examiner.  
If a) or b) corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO 892)
- 2) ☐ Notice of Informal Patent Application (PTO 152)
- 3) ☒ Information Disclosure Statement(s) (PTO 1449, Paper No. 1)
- 4) ☐ Interview Summary (PTO 413, Paper No.       )
- 5) ☐ Other \_\_\_\_\_

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### DETAILED ACTION

#### *Election/Restriction*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-5, drawn to a filter cartridge, classified in class 210, subclass 493.2.
  - II. Claim 6, drawn to a method of cleaning chemicals, classified in class 210, subclass 650.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the filter cartridge of group I can be used in a process of water pretreatment for removing large particles or flocs from water or metal particles separation from industrial waste water..
3. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

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4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with John Collahan on 3/17/03 a provisional election was made without traverse to prosecute the invention of group I, claims 1-5. Affirmation of this election must be made by applicant in replying to this Office action. Claim withdrawn from further consideration by the examiner, 37 C.F.R. 1.142(b), as being drawn to a non-elected invention.

#### ***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686

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F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CAR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CAR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CAR 3.73(b).

7. Claims 1-2 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,511,600. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations of the claims are overlapped by the limitations of claim 1 of the patent, the pellets properties are inherent of the selected polysulfone polymers of the claimed formula.

#### **Claim Rejections - 35 U.S.C. § 112**

8. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

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the invention. The claims above are unclear as to whether the filter cartridge or the pellets with the claimed properties are intended.

*Claim Rejections - 35 U.S.C. § 102*

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohtani (EP 1057520 A1)(hereinafter '520). Reference '520 discloses the filter having all the parts made of polysulfone of the claimed formula, the filter as hydrophilic (entire disclosure, in particular page 3, lines 34-41, page 4, lines 1-20, page 6, lines 12-46). All the materials in the filter are made of the same polysulfone polymer, therefore, the resulting pellets generated from the filter cartridge **inherently** have the same properties, e.g. viscosity and melt flow rate.

*Claim Rejections - 35 U.S.C. § 103*

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11. The following is a quotation of 35 U.S.C. 135 (a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtani (EP 1057520 A1)(hereinafter \*520) further in view of Pall (4,521,309)(hereinafter \*309). Reference \*520, discussed above, teaches sealing by hot melt method. Making at least on the filter cartridge members by hot melt molding and annealing is not disclosed in reference \*520. Reference \*309 teaches a filter cartridge having a membrane and end caps, making the end caps by conventional injection molding or hot melt is suggested, further using melt-bonding by inducing heat to soften the cap for sealing to the filter end is also disclosed (column 2, lines 36-43, column 5, lines 1-29). The specific annealing or heating temperature of the molding or the further melting process is not disclosed in the later reference. It would have been obvious to one skilled in the art at the time the invention was made to adapt the filter with end caps made of thermoplastic polymers, e.g. polysulfone, and further make the end caps by conventional melt-molding or injection molding, as suggested by \*309. It would have been also further obvious to adjust the injection molding

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process or the further annealing process with temperatures corresponding to the melting temperature of the selected thermoplastic polymer. Adjusting temperature for the injection molding process it would have been within the knowledge of the skilled artisan at the time the invention was made.

13. Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Ohtani (EP 1057520 A1)(hereinafter '520) in view of Arif et al (5,324,443). Reference '520 teaches the filter with all the elements made of polysulfone, as discussed above, however fails to disclose cleaning the filter with dilute acid, as claimed. Reference '443 teaches a cleaning solution and its use in cleaning filters for removing oil, soil, organic contaminants, etc. (Column 1, lines 11-22, column 6, lines 7-11). The cleaning composition or acid cleaner includes a list of carboxylic acids, and its mixtures with water and other components (column 2, lines 52-68, column 3, lines 1-12). It would have been obvious to one skilled in the art at the time the invention was made to treat the filter with a diluted acid solution as suggested by '443, for removing any filter contaminants and its final construction and prior packaging. The temperature does not seem to be critical, since it covers ambient temperature ranges, however, one skilled in the art at the time the invention was made would have expected an increase in temperature to cause a strongest cleaning effect and



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sterilization. Reference \*520 further teaches that treating the filter at 80 degree C. with chemical solutions can be performed in the filter, due to its resistant to chemicals.

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Additional references cited in the record shows the state of the art on filter cartridges, and in particular filters having the claimed elements and the methods of sealing the end caps and pleating the filter and filter materials.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana Fortuna whose telephone number is (703) 308-3857. The examiner can normally be reached on Monday-Friday from 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached on (703) 308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 for regular responses, and (703)872-9311 for after finals.

Ana Fortuna

March 17, 2003



**ANA FORTUNA**  
**PRIMARY EXAMINER**